"Safe Tunnelling For The City and For The Environment"



ITA-AITES WORLD TUNNEL CONGRESS 2009 and the

35th ITA–AITES General Assembly

3rd BULLETIN

Budapest, Hungary May 23–28, 2009

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Invitation of the Chairman

The Hungarian Tunnelling Association is pleased to welcome you to the wonderful capital city of Budapest for the ITA–AITES World Tunnel Congress 2009 entitled "Safe Tunnelling For The City and Environment" and the 35th ITA– AITES General Assembly, which is being held at the Budapest Congress and World Trade Center from 23 to 28 May 2009.

Budapest – with its special location – has always had an important role in Europe. This beautiful city along the Danube River has long been an attractive tourist centre where East and West, and North and South meet.

2000 years ago Romans built roads and amphitheatres here. Throughout the centuries many different styles of building facilities have been created. What wars destroyed, people rebuilt. There are architectural monuments in the city's historical areas, which form part of UNESCO's world heritage sites. Budapest is also rich in culture, natural beauty, and famous for its hospitality.

Budapest and Hungary are part of the International Corridors where highways, motorways, expressways and express railways are being built to bolster European international transport linked to the Trans-European transport and logistic network.

1896 marked the beginning of the Budapest Metro, the first to be built on the European continent. Since then major world cities have constructed many hundreds of kilometres of Metro lines, thus developing the utmost expertise in the field of urban underground transport. In Budapest these international professional engineers will meet and show off their cutting edge technology.

Road tunnel fires have long posed a threat to people's safety, and events in recent years have served to reinforce this sad truth. The congress is expected to attract a large audience. Now Budapest is constructing its 4th Metro line and will likely construct an additional line, which will also serve as a regional line. However, it will still be necessary to build new bypass roads with long tunnels in order to spare the city's inhabitants environmental pollution.

We look forward to seeing you. Please come to Budapest in May 2009!

Pál Kocsonva

Chairman of WTC2009 and President of the Hungarian Tunnelling Association

Organising Associations and Sponsors

The Congress is organised by the Hungarian Tunnelling Association (HTA)

on behalf of the International Tunnelling and Underground Space Association (ITA-AITES),

under the main sponsorship of the Minister of Transport, Telecommunication and Energy, The Lord Mayor of the Capital City Budapest

and patronage of the **National Infrastructural Development Corporation** (NIF Corp).

6

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For more information, please contact the Corporate Communications Department. Hindustan Construction Co Ltd Hincon House, L. B. S. Marg, Vikhroli (W), Mumbai - 400 083, India. Tel: +91 22 2577 5959 Fax: +91 22 2577 7568

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Partner Organisations

Hungarian Academy of Sciences (MTA) Budapest University of Technology and Economics (BME) The Hungarian Chamber of Engineers (MMK) Hungarian Scientific Association of Transport (KTE) *fib* Hungary (fédération internationale du béton) Hungarian Society for Trenchless Technology (HSST) Association of Hungarian Consulting Engineers and Architects (FIDIC–TMSZ) Hungarian Metro Society (MMT) Hungarian Geological Society (MFT)

Important Dates and Deadlines

Full length paper and extended abstract submission	28 February 2009
Cancellation of registration without penalty (100% refund)	28 February 2009
Suggested deadline for hotel reservation	31 March 2009
Cancellation of hotel accommodation without penalty (100% refund)	31 March 2009
Cancellation of registration with 50% penalty (50% refund)	15 April 2009
Payment of normal registration fee (except who has accepted abstract)	15 May 2009





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Pre-Congress Educational Training Course

The theme of the course will be **Risks during Construction of Urban Tunnels in Soft Ground** under the scientific coordination of **A. Assis** (ITA CET President), **D. Peila** (ITA WG 18 Animateur) and **M. Thewes** (ITA Executive Council). Participation is highly recommended for young engineers as it serves an excellent opportunity for theoretical and practical training.

The official language of the workshop is English.

Venue and date

Venue: Budapest University of Technology and Economics, building A (XI. distr., Egry József u. 20–22)
Date: Friday, 22 May – Saturday, 23 May

Registration fees

For young (max. 30 years old) engineers in advance	e 216 EUR
on-site payment	240 EUR
For any other persons in advance	240 EUR
on-site payment	264 EUR

For on-line registration please check the website at www.wtc2009.org. The Pre-Congress Educational Training Course and WTC has a joint on-line registration system. Please choose the appropriate registration category. For further non-scientific questions use the e-mail secretariat@wtc2009.org.

Registration fee for the course participants include

- Participation in the course
- Course material
- Welcome reception (22 May)
- Coffee breaks (22–23 May)
- Lunches (22–23 May)

Detailed programme

Friday, 22 May

- 10:00 Opening Ceremony: Rector of the BME (TU Budapest) together with ITA-CET President *G. Peceli, A. Assis*
- 10:30 *I.-M. Lee / G.-C. Cho* (ITA ExCo): Soil investigation: methods and classification systems for conventional and TBM drives

- 11:10 Coffee Break
- 11:25 *F. Amberg* (PS* Swiss Tunnel Consultants): Design criteria for conventional linings in soft ground
- 12:05 Discussion
- 12:15 Lunch Break
- 13:15 *W. Aldrian / T. Celestino* (PS BASF / ITA WG15): High Performance Shotcrete for Temporary and Final Linings
- 13:55 *U. Weber* (PS Sika): Water proofing of conventional tunnels and stations
- 14:35 *F. Gruebl* (WG 18): Design criteria for segmental linings in soft ground: segments + waterproofing
- 15:15 Coffee Break
- 15:30 *R. Leucker* (ITA–COSUF): Tunnel Safety in Design and Operation: Road and Rail Tunnels
- 16:10 P. Grasso / V. Guglielmetti (ITA ExCo): Monitoring and mitigation measures
- 16:50 Discussion and Welcome party

Saturday, 23 May

- 9:00 *E. Leca / S. Eskesen* (WG 3 ViceAnim / ITA ExCo): Risk management for international tunnelling projects
- 9:35 *D. Peila* / lecturer from Mapei (WG 18 / PS Mapei): Soil conditioning in EPB Tunnelling – mitigation of stability, wear and permeability problems
- 10:10 Coffee Break
- 10:25 *K. Bäppler* (PS Herrenknecht): Soft Ground TBM Technology Large Diameters: Special solutions and case histories
- 11:00 *W. Sawicki* (PS LOVAT): Soft Ground TBM Technology EPB machines: Special solutions and case histories
- 11:35 *H. Ueda* (PS STA): Soft Ground TBM Technology Slurry shields: Special Solutions and case histories
- 12:10 Discussion
- 12:20 Lunch Break
- 13:50 *Gy. Posgay / M. Müller:* Risk during the construction of the Budapest metro in soft ground
- * PS = Prime Sponsor of ITA

- 14:25 *R. Galler* (WG19): Conventional tunnelling: stability problems and countermeasures
- 15:00 K. Grimm / H. Weigl (PS Bilfinger Berger): Compressed air and ground freezing in tunnelling: requirements and lessons learnt
- 15:35 Coffee Break
- 15:50 *M. Thewes* (ITA ExCo): TBM drives in soft ground: face stability and annular grouting in highly permeable soil
- 16:25 *U. Wadepohl* (PS Hochtief): TBM drives in soft ground: logistics and wear problems and solutions
- 17:00 Discussion, conclusion and Closing of the Training Course



General Assembly

General Assembly 1–2 Date: Sunday, 24 May & Wednesday, 27 May Time: 9:00–13:00 Venue: Hotel Bara (10 minutes walk from BCWTC) Transfer will be provided to and back. Departure in front of BCWTC at 08:00.

Working Group meetings

Date: Sunday, 24 May & Monday, 25 May Time: 14:00–18:00 Venue: BCWTC WG2 Research E. Leca (animateur), C.-S. Yoo (vice-animateur), S. D. Eskesen (tutor) WG3 Contractual practices in underground construction A. Dix (animateur), M. Smith (vice-animateur), M. C. Knights (tutor) WG5 Health and safety in works

D. Lamont (animateur), M. Vogel (vice-animateur), V. A. Umnov (tutor)

WG6 Maintenance and repair of underground structure

H. Russell (animateur), R. van den Bosch (vice-animateur), B. Yun (tutor)

WG11 Immersed and floating tunnels

Ch. F. Ingerslev (animateur), J. Baber (vice-animateur), Y. Leblais (tutor)

WG12 Shotcrete use

T. B. Celestino (animateur), A. Ishida (vice-animateur), E. Grov (tutor)

WG14 Mechanization of excavation

L. Babendererde (animateur), F. Amberg (vice-animateur), K. Fukumoto (tutor)

WG15 Underground and environment

J. K. G. Rohde (animateur), J. Y. Kaneshiro (vice-animateur), I.-M. Lee (tutor) WG17 Long tunnels at great depth

G. Seingre (animateur), M. Shimokawachi (vice-animateur), P. Grasso (tutor) WG18 Training

D. Peila (animateur), M. Thewes (tutor)

WG19 Conventional tunnelling

H. Ehrbar (animateur), R. Galler (vice-animateur), F. Vuilleumier (tutor)

WG20 Urban problems – Underground solutions

A. Elioff (animateur), W. Broere and J. Nishi (vice-animateurs), H. Parker (tutor)



Congress Main Topics

- 1 Risk analysis, finances and contractual relationships
- 2 Geological and geotechnical investigations
- 3 Tunnelling in soft ground with shotcrete method
- 4 Cut- and cover constructions
- 5 Mechanized tunnelling
- 6 Monitoring, settlement control
- 7 Quality Management
- 8 Miscellaneous (storing facilities, research and development etc)
- 9 Architectural design, structural design and management policy
- 10 City, tunnel, environment and safety
- 11 Maintenance, repair and rehabilitation
- 12 Special tunnels (long tunnels)

Opening & Closing

Opening ceremony

Date: Monday, 25 May Time: 9:00–10:30 Venue: BCWTC, Pátria Hall – Plenary Lecture Hall (level –1)

Closing ceremony

Date: Wednesday, 27 May Time: 17:45–18:00 Venue: BCWTC, Pátria Hall – Plenary Lecture Hall (level –1)

Keynote Lectures (Energy-Transport, Risk-Safety, Technology)

Date: Monday, 25 May Time: 10:50–12:30 Venue: BCWTC, Pátria Hall – Plenary Lecture Hall (level –1) *KAZATSAY, Zoltán* (EU Deputy Director-General for Transport): European Transport, Tendencies, Developments *KNIGHTS, Martin* (ITA–AITES President): About Risk Managements *WITTKE, Walter* (General Manager of WBI Eng Co.): Conventional Tunnelling Methods in Soft Ground in Urban Areas – Risks and Chances

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	Th <mark>ursday,</mark> 28 May		Technical Tours Post-congress Tour												
ary	Thu 28		COSUF												
t/Hung	day, ay		-	General Assembly	(Hotel Bara)	reak	EX-CO	Meeting		remony		iquet tion only)			
in Budapes	Wednesday, 27 May	·	Technical Sessions	coffee break	Technical Sessions	lunch break	Technical Sessions	coffee break	Tech. Sess.	Closing Ceremony		WTC Banquet (extra registration only)		er Sessions	grammes
Technical Programme of ITA–AITES 2009 WTC in Budapest/Hungary Schedule at a glance	Tuesday, 26 May		Open Sessions	coffee break	Open Sessions	lunch break	Technical Sessions	coffee break	Technical Saccions			Concert	ation	Technical Exhibition and Poster Sessions	Accompanying Persons Programmes
Jramme of ITA Sch	Monday, 25 May		Opening Ceremony	coffee break	Keynote Lectures	lunch break	Technical Sessions	ooffee break	Lechnical Technical	Sessions			Registration	Techr	Acc
Technical Prog	Sunday, 24 May		-	General Assembly	(Hotel Bara)	lunch break	WG Meetings WTC Welcome				WTC Welcome party				
	Saturday, 23 May						EX-CO Meeting WG Animator Meeting Weeting				IIA Welcome party (by invitation only)		Education Training Course (22–23 May at Technical University)		
	Time	8:30	m	ornin 10:30	a 10:50	12:30 lunch*	af 00:4:00	terno 12:40	16:00	18:00		19:00 eve- ning		Education Tr (22–23 May at Te	

WG: Working Group, EX-CO: Executive Council * Lunch will be served in the Sportmax Hall, 3 minutes far from the Congress Center



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TUNNELING SYSTEMS

Open Session

"Planning of Modern Tunnel Projects with Emphasis on Urban Areas"

Date: Tuesday, 26 May Time: 8:30-12:30 Venue: BCWTC, Pátria Hall – Plenary Lecture Hall (level –1) Coordinators: Piergiorgio Grasso

Edvind Grøv

ITA Secretariat

First a general and generic approach followed by specific examples that are outlining the importance of actively utilising and planning the underground for the best of the public.

- 1. Piergiorgio Grasso: Introduction
- 2. Amanda Elliot: WG 20
- 3. Gusztav Klados: The SMART project in Malaysia
- 4. Manuel Arnáiz Ronda: Madrid Metro and M30 Project
- 5. Master plan for the utilisation of the underground: a) Vähäaho Ilkka HKI/Kv: Underground (UG) – Master Plan of Helsinki
 - b) Gu Xin: Master plan of Shenzhen (China)
- 6. Keith Tsang: Deep Sewage Tunnels in Hong Kong
- 7. Paolo Comastri: Lyon-Turin New High-Speed Railway Cross the Alps impacting densely built-up area
- 8. Harvey Parker (as reserve): A new tunnel in Seattle to replace the aging and earthquake-damaged viaduct along the waterfront
- 9. Discussion and conclusions

Instruction for Speakers and Poster Presenters

Detailed information, instructions for speakers and poster presenters can be found on the website at www.wtc2009.org.

Poster Sessions

Date: Monday, 25 May – Wednesday, 27 May Venue: BCWTC, Gallery Corridor (Gallery level)

Poster presenters will be informed about the time of their poster presentation by e-mail.



www.dsi-tunneling.com

Technical Sessions

List of accepted oral and poster presentations can be seen on the website. Detailed scientific programme will be announced at www.wtc2009.org later on.

Technical Exhibition and Sponsorship

Many professionals are designing and constructing underground structures using state-of-the-art techniques. We are convinced that this event presents an excellent opportunity to exhibit your engineering technology to a large number of counterparts and, further, to become a sponsor of this event to make it more attractive as well. The Congress is also an excellent opportunity to develop effective advertisements that meet your requirements for high quality sponsorship as well.

The exhibition takes place at the congress centre on 3 levels, next to the coffee break area and session rooms. Tea and coffee will be served within the exhibition area, thus ensuring maximum contact between exhibitors and delegates. The exhibition will be open for 3 full days from Monday, 25 to Wednes-day, 27 May. Exhibitors may install their facilities on Sunday, 24 May.

Further details on exhibition e.g. floor plans, list of exhibitors, stand numbers, please download the exhibition manual in pdf format from the website at www.wtc2009.org.



List of exhibitors

AFTES Plant & Equipment Branch AMBERG Group ARCADIS (SG – Geotechnika, a.s.) Atlas Copco s.r.o. Babendererde Engineers GmbH **BASE** Construction Chemicals Europe AG Ceresola TLS AG Consorzio Tre Esse / Rocksoil S.p.A. **CRC Press / Balkema DENKA Chemicals GmbH** DMT GmbH & Co.KG **DSI Holding GmbH** EDILMAC dei F.LLI MACCABELLI SRL Encardio-rite Electronic Pvt. Ltd. Erkat GmbH **FiReP International AG** FÖMTERV Zrt. **GEOCONSULT ZT GmbH** Geodata Group Geodata S.p.A. GEOKON Inc. - NAM Zrt. germanBelt Systems GmbH + Co. KG Goecke GmbH & Co. KG Günther Spelsberg GmbH + Co. KG Herrenknecht AG Hídépítő Zrt. **INECO TIFSA** InnoTrans 2010 – Messe Berlin GmbH ITECH KrampeHarex FIBRIN GmbH Lanxess Deutschland GmbH LOVAT Inc. Maccaferri Elas MAPEI S.p.A. Marioff Corporation Oy



Matrics Consult Ltd. Mining Equipment Ltd. Minova CarboTech GmbH **NFM Technologies** Normet International Ltd. Norwegian Tunnelling Society Rascor International Ltd. S&B Industrial Minerals GmbH Schauenburg MAB GmbH / Boenigk Consult GmbH Schauenburg Tunnel-Ventilation GmbH & Herco Kühltechnik GmbH SELI S.p.A. SIKA Hungária Kft. Sociedade Portuguesa de Geotecnia SOL DATA Solexperts AG Strabag SWIETELSKY Magyarország Kft. Swiss Tunnelling Society Systemair GmbH The Robbins Company TIWO Kft. **TNO Diana BV Tunnels & Tunnelling** UVATERV Engineering Consultants C. C. Ltd. VMT GmbH WBI GmbH WTC 2011 Helsinki Xella Trockenbau-Systeme GmbH







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PROJECT DATA	CONTRACTOR
S-354, S-355 2x EPB Shields Diameter: 6,050mm Installed power: 1,200kW Tunnel lengths: 5,350m Geology: clay, fine sandy silt, marl	Strabag AG, Vinci Construction

Budapest has one of the oldest subway networks in Europe. 1.3 million passengers use the three existing lines daily – too much for the network of just 31.7 kilometers. Therefore, a fourth line is being built which connects the south western part of the city, Buda, with the north eastern Pest. The core element of line 4 will be a tunnel beneath the Danube River of which 5.35 kilometers are being excavated by machine. The crossing under the river is a premiere in Budapest, as the subway has only crossed the Danube above ground in the past.

The two identical Herrenknecht EPB machines S-354 and S-355 (\emptyset 6.05m) started tunnelling in May 2007. With small overburdens of sometimes only 6 meters they successfully cut through clay, fine sandy silt and marl. The S-354 achieved weekly top performances of almost 130 meters, its sister machine even proved its worth with performances of up to 160 meters. After completion of the construction work, line 4 will transport around 600,000 additional passengers a day.

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GENERAL INFORMATION

Date and Venue

The Congress will be held at the Budapest Congress and World Trade Center (BCWTC) from the 23 to 28 May, 2009.

Congress and Exhibition Venue

Budapest Congress and World Trade Center Address: H-1123 Budapest, Jagelló út 1–3. Website: www.bcwtc.hu Phone: +36 1 372 5400 Fax: + 36 1 466 5636

• the largest conference facility in Hungary

• a place where the meetings can be organised in a dynamic and modern environment

- during the last refurbishment, the latest audio-visual, stage-, light-, and airconditioning technologies were built in
- BCWTC is connected to the Novotel Budapest Congress, which is situated at a charming chestnut park

• has a good connection with the city centre and the historical part of the city (the castle area)

WTC2009 Secretariat

Mr. VARGA, Attila Diamond Congress Ltd. H-1255 Budapest, P.O. Box 48, Hungary Phone: +36 1 225 0210 Fax: +36 1 201 2680 E-mail: secretariat@wtc2009.org





27

A Few Words about Hungary

Hungary is located in Central Europe, embraced by the arc of the Carpathians. The landscape is dominated by plains and gentle hills of the Pannonian Basin. Some mountains form 600–900 m high elevation ranges. The landscape is characterized by temperate grasslands, agricultural lands, meadows and nonconiferous forests. Two major rivers: the Danube and the Tisza flow across the country from north to south and provide natural links to the immediate neighbours and the more distant European partners. Lake Balaton, the biggest stillwater lake in Central Europe is a favourite touristic target because of its warm water and nice landscape. The geothermally hot Pannonian Basin provides excellent spas and cure resorts for the country.

There is a geological formation on the karstic region of Aggtelek from the northern border of the country until Jósvafő. The second biggest stalactite cave in Europe has been utilizing for medicinal purposes for many years. It uses the medical effect of the cave-air. The territory of the karstic cave-world was declared a World Heritage site in 1995.

During its more than 1000 years the Hungarian state has experienced every possible historical sort. It was several times invaded by different empires, coming from the east. It survived several subdivisions, lost world wars, civil wars and revolutions. Today, Hungary is a member of the European Union.





Hungary has a slowly diminishing population of ten million. The capital: Budapest is the most densely populated area with its two million inhabitants. Several major cities of some 100,000 inhabitants are found in county centres.

Cultural highlights as well as culinary interests are found everywhere in the country. Nice museums, monuments wait to be discovered in greater cities, around Lake Balaton, in the Danube Bend and in the Puszta (Great Hungarian Plain).

Hungarian musical life became well-known and the Academy of Music has been educating musicians not only for Hungary. *The Academy of Music* was opened in Budapest in 1875, with Franz Liszt as its President and Ferenc Erkel as Director. This institution has been the centre of Hungarian musical education ever since and together with the Philharmonic Society (since 1853) and the Opera House of Budapest (since 1884) the workshop of Hungarian artistic interpretation. There are festivals during the year, and a lot of famous musicians make concerts from all over the world in Budapest.

Transportation

We would like to inform you that our company has a special contract with **Budapest Airport Minibus** which offers special discounted prices for our delegates. WTC2009 participants arriving at either terminals (Ferihegy 1, 2A or 2B) of Budapest International Airport are advised to use the Airport Minibus shuttle service (www.airportshuttle.hu), which takes one to any address in Budapest for a fee of **2700 HUF/person** (cca 9 EUR). Return ticket costs **4500 HUF** (cca 15 EUR). It takes approximately 30–45 minutes from the airport to the city. Please, be so kind as to indicate your arrival time during the online registration. WTC2009 logo will be placed at the minibus hospitality desk of each terminal.

As an alternative, one can use **public bus service** (line 200E) which connects both terminals **with the underground** (metro) line 3 (blue line). The blue line of the metro has a stop at "Ferenciek tere", from there you can take **bus** No. 8, which takes you to Hotel Novotel Budapest Congress. (Duration of the travel: approximately 80 minutes.) Price approximately: **800 HUF/person** (cca 3 EUR).

Taxis to or from the city cost approximately **5100–5300 HUF** (cca 18–20 EUR) for a one way trip. Offered taxi company: Zona taxi (they have their own desk at the terminals). For more information on the tariffs, please visit www. zonataxi.eu.

Car rentals are available at the airport. Please be informed that the low cost airlines arrive at terminal 1.

Passport, Visa, Invitation Letters

Usually all foreign visitors must have a valid passport. The visa policy of Hungary is liberal. For visits shorter than a month, no visa is required for citizens of most European countries, the United States, Japan and Israel. Most EU citizens can visit Hungary with their domestic identity card. Agreements of the Republic of Hungary on abolition of visa requirements are available on the internet. Visa is required for visitors from most Asian countries, and most states of NIS.

Those who experience any trouble in getting visa to Hungary should not hesitate to contact the congress secretariat immediately. Please note that Hungary is a member state of the EU and Schengen agreement, but make sure to check any changes in your visa regulation at the consulate. The list of Hungarian missions can be found on the Internet on the web site of the Ministry of Foreign Affairs http://www.kulugyminiszterium.hu.



If you need an invitation letter to obtain visa, please contact the congress secretariat. This, however, cannot be considered as a commitment on behalf of the organisers to provide any financial support.

Foreign Exchange, Banking Facilities

The Hungarian currency is the Hungarian Forint (HUF). Currency exchange booths are available at the airport terminals, railway stations, travel agencies, banks and various places in the city. Traveller's cheques and convertible currency may be exchanged at these facilities. Major credit cards are usually accepted in most hotels, restaurants and certain shops in the city. Obtaining cash against ATM or credit cards is very easy from the ATM cash machines that can be found at almost each bank office, hotel or on the street. For the actual exchange rates please visit www.mnb.hu.

Climate and Weather

The weather in Hungary in May is usually sunny and warm. Temperatures are usually in the range between 20 °C and 25 °C during the day. You can check the weather forecast at e.g. http://weather.yahoo.com/forecast/HUXX0002.html

Electricity

The electricity is 230 V, 50 Hz. Japanese, UK, USA and other visitors: please note that Hungary has European/continental-type electric plugs. Ask for converters at the airports, hotels.

Liability and Insurance

The organisers cannot accept liability for any personal accidents, loss of belongings or damage to private property of participants and accompanying persons that may occur during the Congress. Participants are advised to make their own arrangements to obtain health, travel and property insurance before their departure.

Official Language

The official language of the Congress is English. ITA-AITES General Assembly will have simultaneous French interpretation. In case of interest combined with significant attendance of a certain country/nation the organisers may offer the opportunity to provide interpretation in the plenary lecture hall for the participants. This is subject to special agreement. National association presidents may contact the organisers for inquiries.





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Registration Information

All participants are kindly requested to register online via **www.wtc2009.org**, by filling in the personal details and selecting the appropriate registration category. Deadline for the payment of the early bird registration fee was **31 January 2009**. Normal registration fees can be paid until **15 May 2009**, after that onsite fees should be paid on spot. All participants will receive confirmation on registration and hotel reservation, but participants may check their own payment and reservation status in their personal records of the registration database.

Registration fees* for WTC2009 are as follows:

	Congress participants	Student participants	Accompanying persons
Early bird registration before 31 January 2009	680 EUR	300 EUR	150 EUR
Normal registration before 15 May 2009	750 EUR	330 EUR	175 EUR
On-site registration	820 EUR	360 EUR	200 EUR

* Registration fees include 20% VAT.

It is intended that the organisers provide discounted registration for academic researchers and university students, in case external fund raising efforts found to be successful. Group registration discounts may also be possible and are subject to personal agreement. Interested parties should contact WTC2009 Secretariat by e-mail addressed to secretariat@wtc2009.org.

Registration fee for congress participants include:

- Participation in scientific sessions
- Admission to the Opening and Closing Ceremony
- Admission to the exhibition
- Printed material of the Congress
- Congress bag with proceedings
- Welcome reception (24 May)
- Congress concert in the Basilica (26 May)
- Coffee breaks (25–26–27 May)
- Lunches (25–26–27 May)
- Technical tours

Registered accompanying persons are entitled to receive:

- Admission to the Opening and Closing Ceremony
- Welcome reception (24 May)
- Congress concert in the Basilica (26 May)
- Budapest sightseeing tour with visiting the Synagogue (half day)
- Gödöllő tour (half day)

Admission to lunches and technical sessions is not included in the accompanying persons' registration fee.

Catering services during WTC

- Welcome reception BCWTC / Pátria Hall, 24 May (including in the registration fees)
- Lunch Budapest Sportmax Hall 25–26–27 May (including in the the registration fees)
- Lunch for Members of General Assembly 24 May at Côte Jardin Restaurant, Novotel Budapest Congress and 27 May at Budapest Sportmax Hall
- Coffee breaks BCWTC / Exhibition area (including in the the registration fees)
- Banquet Museum of Fine Arts 27 May (not included in any type of the registration fees)

Methods of Payment

Pre-payment can be made either by bank transfer payable to:

Diamond Congress Ltd.

Raiffeisen Bank Zrt.

Address: H-1015 Budapest, Széna tér 1/a

International Bank Account Number HU79 12010154 00175156 00200001 SWIFT code: UBRTHUHB

or by **major credit cards** (American Express, Visa, MasterCard) to be arranged during the secure online registration.

Registrations and hotel reservations, which are not accompanied by appropriate payment, will not be honoured.

Registrations and hotel reservations will be acknowledged in writing. Official invoices and receipts for fees paid by the participants will be handed over onsite upon registration. Congress bureau Diamond Congress Ltd. is responsible for collection of all charges; hence all financial issues are handled and confirmed by the congress bureau.

On-site registration fees, hotel charges and optional programmes can be paid in cash in convertible currency or in Hungarian Forint. Besides, credit cards listed above will be accepted. The organisers regret that cheques cannot be accepted, they should be cashed at the banks.

Cancellation Policy

Cancellations are accepted only in writing. In case of cancellation of registration received till 28 February 2009, the refund is 100%. From 1 March to 15 April 2009, the penalty is 50%. No refund is possible for cancellations submitted after 15 April 2009.

In case of cancellation of hotel reservation received till 31 March 2009 the refund is 100%. After that date prepaid hotel deposits are not refundable.



Accommodation Information

Hotel prices are in EUR, per room per night, including breakfast and all kinds of taxes. After registration, please arrange the hotel booking in the **online registration database** of the congress till **31 March 2009**.

Please note that paying of two nights hotel deposit in advance is mandatory to secure reservation. Balance payment will be requested in the hotel at your check in or check out, if you have not arranged it in advance. For cancellation of your booking, please refer to the chapter Cancellation Policy and Important dates and Deadlines.

You are able to make your hotel booking through the system for the following period: **22–29 May 2009.**

If you want to come earlier or depart later, or share your room with somebody, please contact *Ms. Ildikó Kruppa* by e-mail: ildikokruppa@diamond-congress.hu

Check in time from 2 pm, check out time till 10 am.

Novotel Budapest Congress****

(Conference venue) Address: H-1123 Budapest, Alkotás u. 63–67. Website: www.accorhotels.com Location from congress venue: 1 minute on foot Single room: 154 EUR Double room: 178 EUR

Hotel Mediterran**** Address: H-1118 Budapest, Budaörsi út 20/a. Website: www.hotelmediterran.hu Location from congress venue: 2 minutes on foot Single room: 95 EUR Double room: 125 EUR







Hotel Bara***

Address: H-1118 Budapest, Hegyalja út 34–36. Website: www.hotelbara.hu Location from congress venue: 10 minutes on foot

Building "A"

Room for 1 person: 64 EUR Room for 2 persons: 74 EUR Room for 3 persons: 99 EUR Building "B" Room for 1 person: 53 EUR

Room for 2 persons: 60 EUR Room for 3 persons: 81 EUR

Hotel Charles***

Address: H-1016 Budapest, Hegyalja út 23. Website: www.charleshotel.hu Location from congress venue: 10 minutes on foot Single room: 88 EUR Double room: 96 EUR

Gold Hotel Buda****

Address: H-1016 Budapest, Hegyalja út 14. Website: www.goldhotel.hu Location from congress venue: 15 minutes on foot Single room: 99 EUR Double room: 110 EUR

Mercure Hotel Buda****

Address: H-1013 Budapest, Krisztina körút 41–43. Website: www.accorhotels.com Location from congress venue:

15 minutes by public transportation Single room: 120 EUR Double room: 136 EUR



Building "C"

Room for 1 person: 44 EUR Room for 2 persons: 54 EUR Room for 3 persons: 72 EUR







Danubius Hotel Flamenco****

Address: H-1113 Budapest, Tas vezér u. 3–7. Website: www.danubiushotels.com Location from congress venue:

20 minutes by public transportation Single room: 99 EUR Double room: 115 EUR

Hilton Budapest*****

Address: H-1014 Budapest, Hess András tér 1–3. Website: www.budapest.hilton.com Location from congress venue: 25 minutes by public transportation Single room: 210 EUR Double room: 230 EUR





Hilton WestEnd Budapest*****

Address: H-1069 Budapest, Váci út 1–3. Website: www.hilton.com Location from congress venue: 30 minutes by public transportation **Guest room** Single occupancy: 154 EUR Double occupancy: 166 EUR **Executive room**

Single occupancy: 228 EUR Double occupancy: 240 EUR





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Social Events

WTC2009 Welcome reception Sunday, 24 May 2009

The official welcome reception of WTC2009 will be held in the Pátria Hall at BCWTC, Congress venue. Admission is free for all registered delegates, accompanying persons and exhibitors with registration fee.





Organ Concert in the St. Stephen Basilica Tuesday, 26 May 2009

This organ concert is organised exclusively for participants of the Congress at the St. Stephen Basilica in the city centre. Admission is free for all registered delegates, accompanying persons and exhibitors with registration fee. **Event sponsor: BASF**

WTC2009 Banquet Wednesday, 27 May 2009

The official closing banquet of WTC2009 will be held in the Museum of Fine Arts, located next to the Heroes' Square, the Vajdahunyad Castle and the Museum of Contemporary Art. Admission is not included in any type of registration fees. Application in the banquet can be made online after having arranged your final registration via www.wtc2009.org. Price: 120 EUR/person







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Optional and Accompanying Persons' Programmes

Registration of accompanying persons can be made using the online facility. Departures in front of the Congress Center (not from the hotel) at 9 am.

Budapest sightseeing tour with Synagogue Monday, 25 May 2009

The first programme will be a sightseeing in the Buda side of the city by bus. Among several famous sights, the following places will be visited: Buda Castle, Matthias Church, Fisherman's Bastion, Gellért Hill, Citadel, etc. The tour continues with the visit of the Synagogue. After a guided tour in the largest Synagogue in Europe, sightseeing in the Pest side: Heroes' Square, Basilica, Opera House etc. Lunch is not included in the tour. Participation in this programme is included in the accompanying persons' registration fee only.





Hollókő tour Tuesday, 26 May 2009

The village of Hollókő (*listed UNESCO World Cultural Heritage site*) is a living museum today preserving the culture of the "Palóc" people, their houses, and decorated folk costumes. The village contains 67 protected buildings. Guided sightseeing tour and lunch in a local restaurant is included in the full-day optional excursion. Participation in this programme is not included in any type of registration fees. Price: 65 EUR/person

Gödöllő tour Wednesday, 27 May 2009

This is a half day guided tour by bus to the former summer residence of Queen Elisabeth which is near to Budapest. The town's greatest treasure for tourists is its 250 years old Royal Palace. Visitors can see the living quarters of Emperor Franz Joseph and Empress Elizabeth (Sissi). Participation in this programme is included in the accompanying persons' registration fee only.



Technical Tours

The technical tours will be organised on **Thursday**, **28 May 2009**. The 4 parallel technical tours are including in the registration fee. Minimum number of participants are 15 pax / tour. Application in the technical tours can be made online after having arranged your final registration via www.wtc2009.org. Booking is possible on a first come first serve basis in the personal registration record.



TT-1. Budapest Metro stations of Line 4, Buda side – under construction There are structure-ready 3 of five stations, where inner structures are under construction. The other 2 station-structures are under construction. TBM-bored tunnels between stations are ready. Depot in Kelenföld is under construction. Half day programme.





TT-2. Budapest Metro stations on the Pest side of the Line 4

- under construction

All of five stations are under construction, under the densely built-in narrow streetsarea of the inner city. Special technology needed, because of very old listed buildings are near to the stations building site. Construction of TBM tunnels will be arriving after April 2009, only. Half day programme.

TT-3. Motorway tunnels on M6 motorway Szekszárd-Boly section

There are 4 motorway tunnels in a total length of 3 km under construction by NATM tunnelling method in loess soil on **M6 motorway** Szekszárd-Boly section near town of Bátaszék. Tunnels are located on a 10 km long subsection of motorway within range of a 5 km. Between the tunnels viaducts are under construction will also be seen. Full day programme by bus. Light lunch will be provided.





TT-4. Underground disposal facility – under construction

For storing low and intermediate level radioactive wastes in South Hungary. The exploration activities and the implementation of facilities (the access-tunnel) will be shown. Full day programme by bus. Light lunch will be provided.

Post-Congress Tours

Application in the post-congress tours can be made online after having arranged your final registration via www.wtc2009.org. Minimum number of participants for any of the tours are 15 pax.

Danube Bend tour: Szentendre Thursday, 28 May 2009

Half day tour starts at 13:30. The tour includes a visit to Szentendre, the artists' town with its cobbled-stone squares and picturesque old streets and alleys. Visiting the Skanzen, which is an Open Air Ethnographical museum. The architecture of almost every region of the country is represented in this collection of more than 300 buildings. There will be possibility for shopping in the many handicrafts' and souvenirs shops. Coming back to Budapest at around 18:00. The price of the tour: 40 EUR / person.





Danube Bend tour: Esztergom – Visegrád Friday, 29 May 2009

Full day tour starts at 9:00. Esztergom, the seat of the leader of the Hungarian Catholic Church, the Archbishop of Esztergom, lies next to the Danube. Visegrád is famous for the remains of the Early Renaissance summer palace of King Matthias Corvinus of Hungary and the medieval citadel. Royal feast in the Renaissance restaurant. The dishes are based on genuine medieval recepies and served on special earthenware plates by waiters in period costume to the accompaniment of lute music. After the meal you will take part in a real knights' tournament in the town's lower castle. Coming back to Budapest at around 16:00. The price of the tour: 85 EUR / person.

North-Eastern Hungary tour: Szalajka valley – Aggtelek – Eger

Thursday & Friday, 28–29 May 2009

The two days tour with overnight in the country side starts at 9:00. Arrive at the Szalajka valley, going up to the top of the valley by a small railway. Lunch outside in the valley. The menu is fresh fish with salad and wine. After lunch traveling to Aggtelek. The name of Aggtelek was made famous, both in Hungary and abroad, by one of the most extensive cave system is located within Hungary (its western branch extends to the Slovakia). The karst hills were formed about 500 million years ago. From the bone and tool finds, it is believed that it was used by man seven thousand years ago. One notable feature of the cave system is the underground Concert Hall, where audiences are entertained by the music and the light display. The short tour is approximately 1 hour long. After the tour traveling to Eger. Check in at the hotel. Dinner in a typical wine cellar in the Vale of Fair Women, with wine tasting and Hungarian folk dance and gipsy music.



Next day (Friday, 29 May) after breakfast, sightseeing in Eger. Eger is a city built on hills, replete with history, and with many sides it, so that there is something to suit everyone's tastes. It offers tradition and romance, steeped in its long history, a castle, a Basilica, countless churches, fine wrought-iron gates, frescoes and a museum and library full of priceless objects. On the way home, late lunch in a private wine cellar. Arrival at around 16:00.

The price of the tour (including entrance fees, 2 lunches, 1 dinner, accommodation for 1 night including breakfast): 275 EUR / person.

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